artifacts. All cultural materials recovered were bagged according to individual test units and excavation levels. Field records for each excavated test unit noted the thickness, color, and textural characteristics of soils encountered, and the cultural materials recovered. If prehistoric cultural materials were encountered, additional test units were excavated at five or ten meter intervals surrounding the original unit. Based on whether these tests yielded additional cultural material, a decision was made whether or not to undertake Phase II investigations. Appendix II lists the total number of artifacts recovered from each site during Phase I/II excavations.

Phase II location/identification testing was carried out to determine the National Register eligibility of any sites discovered during the Phase I survey. Phase II testing consisted of the systematic excavation of 1m or 3'x3' test units to determine the integrity, limits, and stratigraphic context of archaeological sites. In floodplain areas, Phase II testing specifically considered the depositional integrity of overlying soils and included preparation of geological cross sections.

RESULTS OF PHASE I AND II INVESTIGATIONS

To facilitate discussion of the cultural resource survey the project area was divided into seven segments 1) Route 273 - Birchwood Park to Greenleaf Manor; 2) Salem Church Road Industrial Park to Red Mill Road; 3) Route 4 Improvements; 4) Route 273 Greenleaf Manor to Amtrak RR; 5) Route 273 - Amtrak RR tracks to Cool Run; 6) Route 273 - Cool Run to Avon; 7) Segment 7 - Access Road - New 273 to old 273 (Figure 2).

Because of alterations and additions to the proposed alignments within the project area (Figure 4), the following discussion includes information gathered in both the 1985 and 1986 field seasons. Segment 1 was initially surveyed during the 1985 field season and comprised the proposed Route 273 ROW from Birchwood Park northwest to a rejoining of the present Route 273 north of Ogletown. Based on alignment shifts, the 1986 season resurveyed this alignment north of Route 4 to a location behind the Greenleaf Manor development. The proposed alignment of Segment 2 originally surveyed in 1985, was also changed, and additional survey within this segment was undertaken north of Route 4 during the 1986 field season (Figure 4). The proposed alignment included in Segment 3, surveyed in 1985, was not altered and no additional survey was carried out in 1986. The major design changes which occurred after the 1985 season necessitated extensive survey of proposed alignments in the project area north of Route 4. Segments 4, 5, 6 and 7 (Figure 4) were arbitrarily designated to facilitate the discussion of the results of the proposed alignments surveyed during the 1986 field season. Complete inventories of all artifacts recovered from Phase I and II testing are included in Appendix II.

SEGMENTS 1-3 - BACKGROUND RESEARCH

Preliminary background research was conducted prior to field survey within all proposed alignments included in the 1985 and 1986 designs (Figure 4). Because Segments 1-3 were different alignments within the same general area, background research on these segments will be discussed together.

Map research for the areas determined that the earliest published map to label the project area as Ogletown was the 1777 Jacob Broom Map of New Castle County. The intersection of present day Routes 4 and 273 is labeled as Ogle Town. No structures or other information is shown. The following year, 1778, William Faden published his map entitled "The Province of New Jersey, divided into East and West, commonly called the Jerseys". This map also includes a settlement labeled Ogle Town and shows the town including several structures in a rough schematic representation. Varle's 1799 Map of the State of Delaware and the Eastern Shore of Maryland, the first map to show extensive detail of Northern Delaware, labels the major road intersection as Ogle, but fails to mention Ogle Town nor show any detail of the Project Area. The 1820 Henry Heald's map of Roads of New Castle County does not label Ogletown as a separate settlement, but shows only the Ogletown-Newark Road, Route 273, and Red Mill Road and does not designate the area as containing a tavern, or other structures. Further research to be presented later shows this to be an inaccurate assessment of the area at this time period and this map must be regarded as incomplete. The first map to show the Ogletown area in any detail is an 1835 map published in the Journal of the Franklin Institute of a survey for the proposed Wilmington to Susquehanna Railroad (Figure 19). A total of six structures are shown including a mill pond and bark mill at the intersection of Ogle's Run with the Ogletown-Newark Road and five structures within Ogle-Town itself. However, the schematic representation of the area makes it difficult to correlate these structures with the structures known to be

standing at this time. By the time of the publication of the Map of New Castle County by Rea and Price in 1849 (Figure 8), a much more detailed picture of the project area can be obtained and this map and later maps (i.e., Beer's 1868 - Figure 9, Hopkin's 1881 - Figure 10, Baist's 1893 - Figure 11, and USGS 1906 - Figure 20) will be employed in the following background research associated with each segment. A thorough deed tracing of the project area included all of Thomas Ogle II's holdings and adjacent parcels within the project area limits and was undertaken in order to enable the prediction of historic cultural resources.

The original 739 acre patent in 1739 to Thomas Ogle II encompasses almost all of the land area within the project area (Figure 21, Table 3). The plantation tract contained three separate farms, each with its own main residence house plus necessary outbuildings. Thomas Ogle II's 1768 will divided the plantation into individual farms. The largest bequest was 259 acres to his son James Ogle, a tract that included the mansion house, the Thomas Ogle House (N-215), that stood at Ogle's Corner until its 1955 demolition. James Ogle and his brothers Benjamin and Joseph each received a one-third interest in a 165 acre tract to the north along Cool (Ogle's) Run. This tract included a grist and saw mill, mill pond and other accessory buildings. The one-third interest received by Joseph Ogle was located at the forks of the Ogletown-Newark Road and the Christiana to Elk River Road and contained 60 acres plus a log structure and a frame barn which at present comprise the Robert Ogle site (7NC-D-105). North of this mill tract and also on the

TABLE 3

VALUATION OF THOMAS OGLE ESTATE -- 1774

	Acres	Value
1-Small lot near Christiana Creek to Thomas Ogle, Jr.	1/2	L6
2-Small lot south side of Christeen St. with a frame tenement thereon		L80
3-Storage and Wharf on Christeen Creek to George Ogle		L200
*4-Plantation on Newark Road	276	L690
5-Lot adjoining afsd. lot of Thomas Ogle, Jr.		L6
*6-1/3 Tract near Ogletown, with a grist and saw mills Dwelling House, etc.	165	L233
7-Undivided right to some lots near Christeen Bridge, bequeathed to Joseph Ogle		
*8-Plantation in and about Ogletown, whereon is a good dwelling house, outhouses, etc.	307	L1535
*9-1/3 of the plantation, grist mills,etc.		L233
10-Lot of ground lying on north side of Nottingham Road and near Christeen Bridge to James Ogle	1	L10
11-Plantation east of Ogletown, poor improvements	185	L462
*12-1/3 of Plantation, Grist mills, etc.	165	L233
13-Lot near Presbyterian Church at Christeen Bridge to Benjamin Ogle	3	L35
14-Plantation in Mill Creek Hundred,land poor	208	L208
15-Lot on west side Christeen Creek, adjoining the same and Elk River Road to Mary Hanson,now McMechen	2	L30
16-Plantation in Mill Creek Hd. adjoining land late of Evan Rice Esq., houses ordinary, land poor	150	L112
17-Lot at Christeen Bridge adjoining the Creek and Elk River Road to Ann Ogle	2	L30
18-Plantation south of Ogletown adjoining land of James Ogle and Thomas Black, log tenement	200	L500
19-Lot on the hill near Christeen Bridge to Catherine the younger	3	L20
*20-Plantation adjoining Ogletown, old house out of repair to the widow during her life	200	L500
21-Plantation in Mill Creek Hd. land poor, housing gone to decay	200	L120
Total	2067.5	L5243

L = Pounds
* - denoted parcels included with the project area

Ogletown-Newark Road, Joseph Ogle was also willed the 276 acre plantation which contained the mansion house first occupied by Thomas Ogle I. This farmstead, owned by Levi Ruth in 1849 (Figure 8) is now the site of the Avon Plant. East of Ogletown, Benjamin Ogle inherited the 185 acre farmstead whose mansion

house, the William E. Heisler site (7NC-D-128) is included within Segment 3. Thomas Ogle II's third wife, Catherine received a life right to the Red House Plantation which includes the A. Temple site (7NC-D-68) and a tract of 200 acres. The remainder of the tract was parceled out through a 200 acre bequest of the southern end to his daughter Catherine (Figure 21). Not long after the death of Thomas Ogle II, a long legal battle ensued between the various heirs of Thomas Ogle II. The initial legal suit was brought by Howard Ogle, a son of Thomas conceived after the 1777 will was written. The Orphan's Court proceedings that accompanied the settlement of this suit provide much of the known data concerning location and condition of the archaeological sites located within Segments 1-3 (see Table 3).

The parcels noted in Table 3 are included within the poject area. Following their initial inheritance, most parcels retained their original acreage and configurations until the late 19th - early 20th century when a period of rapid development took place along the major transportation routes. Due to recent development and destruction none of the historic structures noted above survive above ground.

Historic resources in these segments primarily date to the 19th century; however, a documented late 18th century grave site does exist associated with the Thomas Ogle House (N-215), a mid-18th century mansion house which stood until its demolition in 1955 by DelDOT. Nineteenth century historic resources (shown on Rea and Price, Figure 8) include the Foreman property (A. Temple site, 7NC-D-68), the John Ruth Inn House (7NC-D-126), W. E.

Heisler House (7NC-D-128), and the Robert Ogle House (7NC-D-105) (Figure 22 and Plates 1 and 2). The structures associated with all of these sites are no longer standing and all of the associated archaeological remains have probably suffered 20th century disturbance. All of these historic resources lie within the project right-of-way.

Several contemporary travel accounts exist for the mid-18th and early 19th centuries, and present the most accurate picture of Ogletown for this period. William Black in 1744 said of Ogletown "... at 12 o'clock arrived at Ogle Town 19 miles from North East, where we stopped and refreshed our selves with Bread and Cheese, Punch and Cyder, our horses with good Planter's Oats, after which we proceeded on to Wilmington ...." (Black 1877). Joshua Hempstead in his 1749 journal stated "..... and so journeyed alone to Ogletown and got there about 4 in the afternoon and dined there with Mrs. Lucas and her daughter, the widow of Ivory Lucas, Decd. They entertained me very bountifully. I oated my horse at ye tavern close by. I stayed here till after 6 and recd. a letter & c for Mr. Sol Coit. Here are mostly wooden houses Cribb fashion and old, those that are newly built the logs are hewed and as thick as hog neck or thereabouts....." (Hempstead 1954). Benjamin Mifflin in his 1762 journal noted; "set off and got to Ogle Town, if it deserves the name of a town. There being but one Brick House and a few wooden ones all the property of Thomas Ogle, no tavern in the place Ogle having kept one and behaving ill had his licence taken away. I thought to have pushed in to the head of Elk, but the sun being down, myself and horse fatigued and being a stranger to the road, and Ogle

telling me he still entertained travelers, concluded to lodge there, but could get neither punch nor Wine, but good oats and hay for my horse....." (Paltsits 1935). The last extant travel account describing Ogletown is a mid-19th century account (1830-1848) by Louis-Philippe, " From Christiana to Elkton, which is to say over a stretch of elevan miles, there is no inn to be found...." (Louis-Philippe 1977).

SEGMENT 1 - SURVEY RESULTS

There exists a medium potential for the presence of prehistoric resources within this segment of the project area north of the Ogletown-Newark Road and the Route 4 intersection (Figure 12). This area contains well-drained settings adjacent to spring heads or swampy lowlands which Custer (1983) and Custer and DeSantis (1986) predict often to be the location of micro-band base camps and procurement sites during the Archaic through Woodland II periods. Because the location of the present roadbeds are identical to those of the 18th and 19th centuries, there also exists a high potential for the location of historic sites dating to the late 18th through the 20th centuries (Figures 8, 9, 11 and 20). Fallow fields, asphalt-covered lots, and old growth forest comprise most of the right-of-way in this portion of the project area. The eastern terminus of this segment northwestward to Route 4/273 was extensively tested and found to contain no cultural resources due to the swampy nature of the ground surface (Figure 23 and Plate 1).

Phase I survey in Segment 1 resulted in the discovery of 3 archaeological sites, 2 with purely historic components, and one

site with both prehistoric and historic materials (Figure 24, Table 1 and Plates 1, 2, and 3). All of these sites were located by subsurface testing. Prior disturbance to the proposed right-of-way was moderate in this segment.

William E. Heisler Tenancy Site (7NC-D-127, N-10893)

Within the central portion of this segment, the William E. Heisler Tenancy site was located on the northeast corner of the intersection of Red Mill Road and Route 4 (Figures 22 and 25, and Plate 1). The site is due east across Red Mill Road from the John Ruth Inn site and approximately 600 feet, due west of the William Heisler House site. The site was not located by Thomas's (1980) cultural resource survey of the Route 4/273 project area.

Background research indicated that the site was occupied by at least 1868 (Figure 9) at which time it was occupied by J. Pritchard. The house structure was not present at the time of the publication of the Rea and Price Map of New Castle County (Figure 8). Referral to both deed records and prior DelDOT design maps for several episodes of Route 4/273 reconstruction enabled prediction of this site's location at the northeast corner of the intersection of Red Mill Road and Route 4/273. A preliminary search of documentary sources revealed that the structure was standing at the time of the 1938 DelDOT improvements to the Route 4 roadbed (Figure 26). In addition, a former resident of the site, Elwood Wilkins, of Stricklersville, Pennsylvania, possessed a series of photographs of the structure taken by his father in the early 1900s (Plate 4). These photographs showed that the site contained a 2 1/2 storey stucco over brick structure, with a small carriage shed, and a small

PLATE 4

W.E. Heisler Tenant House, ca. 1900, Looking North

privy shed to the rear of the house. The house was demolished ca. 1930 and the site remained vacant until 1965. Since 1965, the site had been the location of two separate gas stations and their buildings and gas platforms were placed on different areas of the site.

Archaeological testing of the site was greatly assisted by the information obtained from the Phase I research. Because of the known disturbance to the site, mechanical removal of the mid-20th century occupation surfaces and asphalt covering was accomplished. In order to identify and locate the house foundations, and to determine the integrity of the historic land surface, backhoe excavation was employed to strip off all the asphalt and fill layers (Figure 25). Trenches were excavated in the former yard areas, while the area surrounding the house foundation was exposed through an exposure of a 30' x 60' area (Trench 7).

A total of seven trenches were placed within the areas of the site not presently occupied by the extant BP gas buildings and platforms (Figure 25). Trenches 1-3 were excavated to test the stratigraphic content of the northern half of the lot, outside of the present BP occupation, but within the boundary of the parking lot of the first gas station occupation. The excavation results showed that prior to construction of the parking lot, the existing topsoil had been buried by approximately one foot of fill composed of road gravel and orange-brown sand. A sample of artifacts contained in this topsoil were obtained by the excavation of Test Unit no. 5, which recovered a low density of 20th century glass and ceramics from

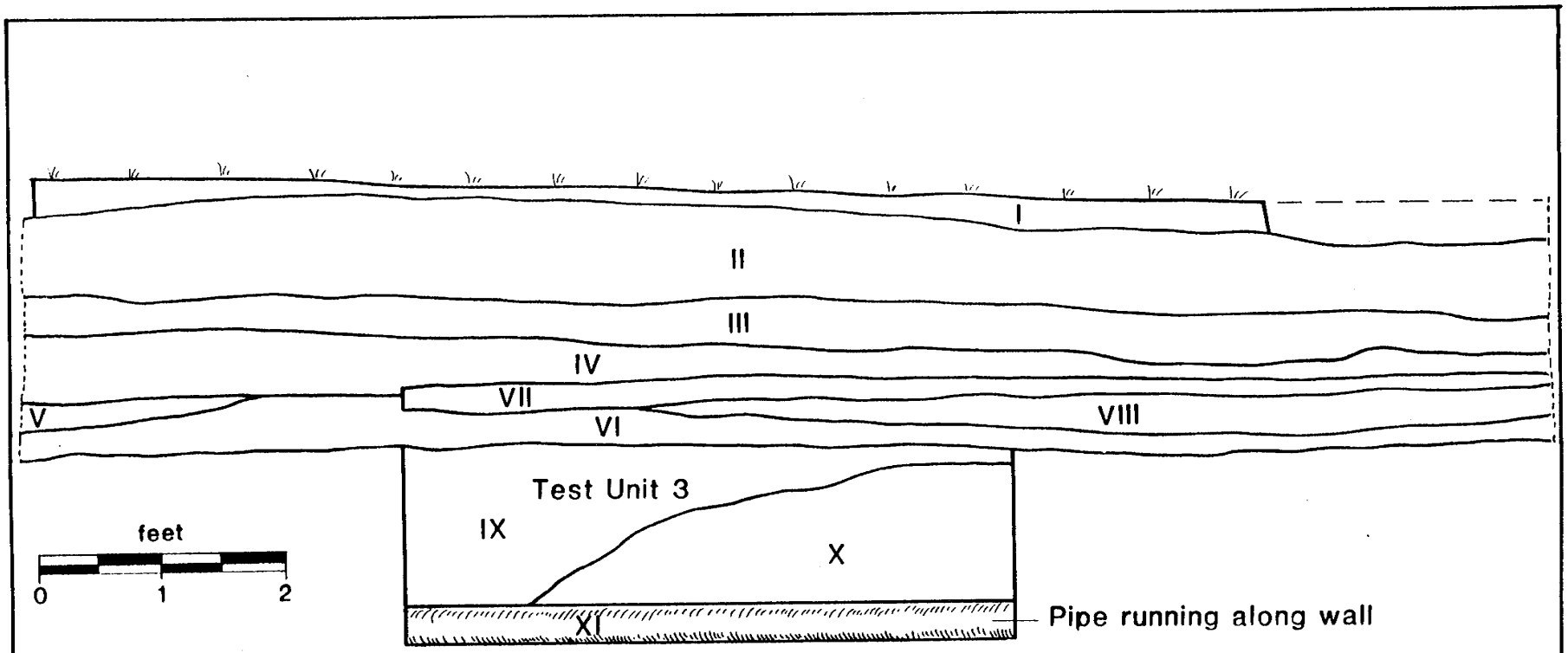
the upper fill levels and only 4 redware fragments from the buried topsoil levels. Because the stratigraphy of the other trenches showed even less remaining topsoil and increased disturbance levels no further testing was carried out in this area.

The back yard area of the site was examined by Trench 4 which showed that this area had been completely disturbed by the construction of concrete platforms related to the first gas station occupation. In this area none of the original topsoil remained and no further testing was carried out. The stratigraphy of the side yard areas were sampled through the excavation of Trenches 5 and 6 by backhoe. These trenches were excavated so as to provide both a vertical profile and horizontal exposure of the original ground surface which was then sampled through the excavation of two 5' x 5' test units. Test Unit no. 3, within Trench 6, recovered numerous artifacts, but most were recovered from disturbed contexts above a pipe trench located in the southern half of the unit (Figure 27). A variety of mid-19th century ceramics and glass were collected. Test Unit 4, excavated within Trench 5, yielded only brick fragments and various late 19th and early 20th century glass fragments from a buried topsoil horizon (Figure 28).

The final area investigated was that of the foundation, shown on the 1938 DelDOT design map (Figure 26). Trench 7 was excavated to determine if any stuctural remains existed from the circa 1860 foundation. Excavations revealed a partial foundation of the structure. The east and west walls, composed of a

FIGURE 27

W. E. Heisler Tenancy Site, 7NC-D-127, Trench 6, Unit 3, South Wall Profile



I-Macadam

II-Gray black medium sized road gravels

III-Orange sand with gray road gravels (fill)

IV-Orange brown sand with gray road gravels (fill)

V-Orange brown sand (fill)

VI-Brown sandy loam (old topsoil)

VII-Macadam

VIII-Large sized gray black road gravels

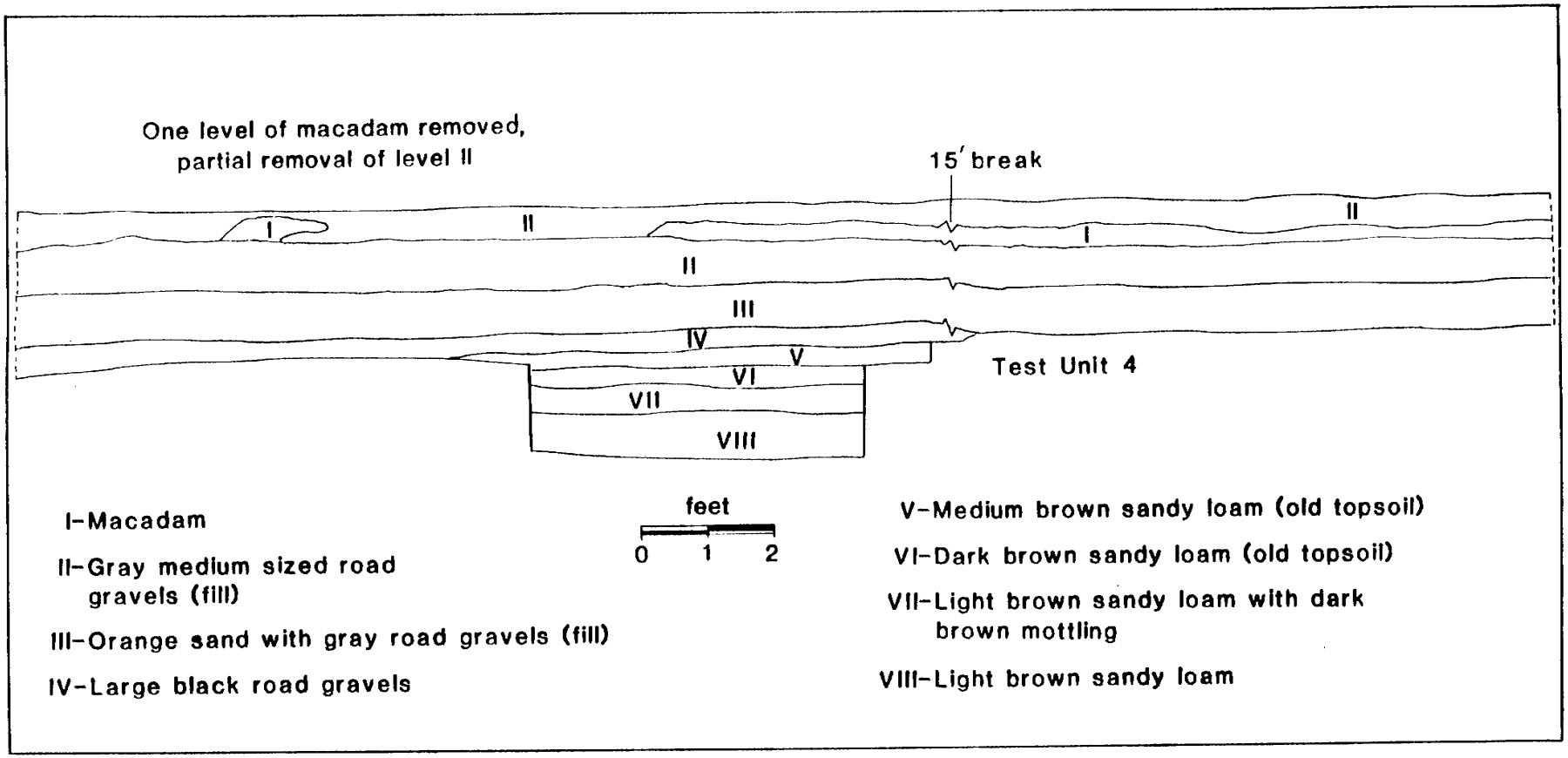
IX-Orange sand with gravels and gray clay pockets

X-Brown sandy loam with orange and gray sandy clay (pipe trench fill)

XI-Pipe (ceramic)

FIGURE 28

W. E. Heisler Tenancy Site, 7NC-D-127, Trench 5, Unit 4, South Wall Profile



mortared cobblestone, and an unattached brick foundation in the southeastern foundation area were located. It was noted that the emplacement of a series of gas tanks had totally disturbed the eastern foundation area and had partially disturbed the southern foundation wall area. Test Units 1 and 2 were placed on either side of the northern wall to test for the presence of builders trenches or other intact features associated with the foundation wall. Excavation of Test Unit 1 revealed a linear 5" wide feature parallel to the wall which contained a single diagnostic sherd of blue shell-edged whiteware dated to ca. 1850. Excavation on the southern side of wall (Test Unit 2), revealed the same linear feature paralleling the wall. Included in the bottom of feature was a handle fragment from an ironstone chamber pot, dated to circa 1860. In both of these units none of the original topsoil horizon remained due to extensive grading and only approximately 8" of the feature fill remained. Unit 6, placed within the southeast section of the foundation adjacent to a single width brick course, encountered a large area of disturbed soil in the eastern half of the test unit, which was determined to be a pipe trench. Outside of this disturbance a segment of the eastern foundation wall was located. Mid-to-late 19th century glass and ceramics were found in an original topsoil horizon associated with this foundation. The entire area uncovered within Trench 7 was flat-shoveled to detect any features remaining in the subsoil. Test Unit 7 was placed within an artifact concentration that was associated with a dark amorphous stain. The upper 4", the original ground surface, contained a relatively high density of artifacts dating to the

mid-to-late 19th century accompanied by a soil matrix containing charcoal and slag. The depth of this feature, interpreted as a sheet midden truncated by the gas station construction, extended to approximately one foot below the top of the excavation. In the southwest corner of the unit a square posthole was located. Attempts to locate extensions of the feature were not succesful due to the deeper grading and disturbance which occurred surrounding this area.

Additional background research was conducted on the site as part of these Phase II investigations. The approximately one-half acre parcel under study was originally part of a 200 acre tract granted in 1685 to Edward Green of New Castle County (Table 4). Following a series of deed transfers the parcel came into the possession of Thomas Ogle by a deed transfer dated 1749. At this time the mansion house on the tract was located approximately 500' to the east of the William Heisler site (7NC-D-128). The lot was split from the larger parcel ca. 1860 (Deed O-7-68) and a house was constructed on the lot in the mid-1860's. Through the next deed transfer (C-8-475) the parcel was reintegrated back into the larger tract, functioning as a tenancy to the main house and farm. The house was demolished at the time of the 1947 sale to Arnold Marin which established the present lot configuration. Gas stations were built on the lot in 1958 and again in 1977.

Phase I and II testing at the William E. Heisler Tenancy revealed that former yard areas outside of the foundation areas, contained a buried topsoil. However, this topsoil had been thoroughly mixed and disturbed by gas station construction

TABLE 4

SUMMARY OF DEED TRANSACTIONS FOR THE WILLIAM E. HEISLER SITE (1685-1976), AND THE WILLIAM E. HEISLER TENANCY SITE (1860-1976)

Transaction	Date	Deed Reference	Acres
Edward Green	1685	Grant	200
Edward Green to Jacob Rodgers Sr.	1696	"	"
Jacob Rodgers, Jr. to Peter Clawson	1729	"	"
Jacob Clawson to James James Jr.	1734	"	"
Edward Robinson, Adm. to Thomas Ogle	1748	Q-1-79	185
Thomas Ogle to Benjamin Ogle	1768	Will	236
Benjamin Ogle to Samuel Eccles	1794	N-2-215	236
Samuel Eccles to David Irwin	1797	P-2-520	231
Isabella Irwin, Admx. to Isaac Menough	1804	C-3-42	236
John Cunningham,Exc. to Daniel H. Egbert	1825	R-4-224	231
Daniel H. Egbert to William E. Heisler	1839	B-5-429	213
William E. Heisler to Jediah Allen	1860	L-7-78 O-7-68	100 2*
Jediah Allen to George and Joseph Pritchard	1865	C-8-475	102
George Pritchard to Joseph Pritchard	1881	V-11-97	102
Joseph Pritchard to Robert Fitzsimmons	1884	D-13-10	102
Robert Fitzsimmons to Henry E. Ross	1920	I-29-196	102

TABLE 4 (cont.)

Transaction	Date	Deed Reference	Acres
Henry E. Ross to John Kennelly	1922	A-31-44	102+
John T. Kennelly to Arnold Marin	1947	P-47-593	1.59
Arnold Marin to Ivan Parsons	1957	A-60-469	1.59
Ivan Parsons to Irving Spiro	1957	A-60-506	1.59
Irving Spiro to The Newland Corp.	1957	E-60-525	
The Newland Corp. to John M. Metten	1964	N-72-436	
John M. Metten to The Newland Corp.	1966	P-77-483	
The Newland Corp. to Wells Fargo Leasing Corp.	1976	Q-95-253	

* = construction of W. E. Heisler tenant house on 2 acre parcel

activities. Low densities of mid-19th to the early 20th century artifacts were recovered. Within these excavation areas several 20th century pipe trenches also disturbed the yard areas. Within the foundation area and the surrounding yard areas, a thicker topsoil layer (almost 1' thick) remained although it had also been thoroughly disturbed. Except within the area tested by Test Unit 7, the area contained no intact mid-to-late 19th century ground surface. Excavation of the foundation area showed that demolition of the structure had removed all but the bottom two courses of the foundation. Very shallow builder's trenches were identified containing several artifacts of mid-19th century manufacture.